ENSV Inspection Transmittal Summary Report

Media:
RCRA

Inspection Type:
CSI

Inspection Date:
09/15/2009

Preliminary SNC Findings:
N/A

NOV / NOPV / NOPF:
N/A

Inspector:
Dedriel Newsome

Transmittal Date:

Facility Name:
[redacted]

Address:
[redacted]

ID Number:
MOR000518233

Activity Number:

MM Participationg Progams:

Federal Activity:
Treated tie storage yard

Federal Facility:
No

Potential EJ:
No

SBREFA Provided:	Security Handout Provided:	MM Screening Completed:	EMS ISO 14001:	Compliance Officer:
N/A	N/A	N/A	No	James Aycock

Selection Criteria 1:
Wood Treaters

Selection Criteria 2:

ACS Code:

Inspection Findings:
Some of the hazardous waste constituents in the previous 3/25/04 soil samples have decreased, but some have not.

Comments:

Target Quality:

All redactions in this document are to remove non-responsive information.

485591
RCRA

All redactions in this document are to remove non-responsive information.

REPORT OF RCRA COMPLIANCE SAMPLING INSPECTION

AT

[redacted]

and

MISSOURI TIE & TIMBER

Highway 72 West
Reynolds, MO 63666
(573) 689 - 2040
EPA ID Number: MOR000501924

ON
September 15, 2009

BY
U.S. ENVIRONMENTAL PROTECTION AGENCY
Region VII
Environmental Services Division

1.0 Introduction

At the request of the Air and Waste Management Division (AWMD), I performed a focused Resource Conservation and Recovery Act (RCRA) compliance sampling inspection at [redacted] and at Missouri Tie & Timber in Reynolds, MO on 9/15/09. Both facilities have the same owner and are related. The purpose of the focused inspections was to collect samples at the same locations as the 3/25/04 sampling inspections. The analytical data from both facilities will be used to determine if levels of contamination have diminished at the [redacted] facility. I conducted the inspections under the authority of RCRA Section 3007(a), as amended. This report and attachments present the results of both inspections.

2.0 Participants

[redacted] and Missouri Tie & Timber:
Junior Flowers, Full Owner

U.S. Environmental Protection Agency (EPA):
Dedriel L. Newsome, Environmental Engineer (Lead Inspector)
Jim Aycock, EPA RCRA Compliance Officer

3.0 Inspection Procedures

Upon arrival at the Missouri Tie & Timber facility at about 8:30 A.M., Mr. Aycock and I met Mr. Flowers. I explained the purpose and procedures of the inspections and presented Mr. Flowers with my EPA credentials. He was made aware of their confidentiality rights and informed that a Confidentiality Notice would be provided at the end of the inspections to make any claims. Mr. Flowers was provided with a copy of US Federal Code 1001 and 1002 concerning false statements and documents to read. I reviewed the previous 3/25/04 inspection reports with Mr. Flowers and asked him about changes at both facilities since then. I did not review all waste streams in detail since both inspections were focused sampling inspections. Mr. Aycock and I then collected a sample and duplicate of the wood preservative solution (samples #4544-1 and #4544-1FD) at Missouri Tie & Timber.

Mr. Flowers, Mr. Aycock, and I then drove to the [redacted]

I collected photographs with a digital camera. They are included as photos 1 through 22 and are listed in the photo log. The Entry/Exit checklist completed for both inspections is included as attachment 1.

At the conclusion of the inspection, I summarized the findings and recommendations with Mr. Flowers. I did not again provide Mr. Flowers with compliance assistance documents since they were provided during the previous inspections. I provided Mr. Flowers with a Confidentiality Notice and a Receipt for Documents and Samples which he signed as acknowledgment of receipt (see attachments 2 and 3). ***No confidential business claims were made during the inspection.***

4.0 Findings and Observations

4.1. RCRA Status / Facility Operations

The wood preserving regulations became effective on 12/6/90, and established the F034 listing which consists of wastewaters, process residuals, preservative drippage, and spent formulations from plants that use creosote formulations. However, this F034 listing was a non-HSWA provision, and therefore, not applicable in Missouri as the state has not adopted this listing. Therefore, waste meeting this listing description would be a hazardous waste only if it is characteristic.

In general, railroad ties are treated at the Missouri Tie & Timber facility using creosote. They are then transported to [redacted] and the previous 3/7/01 and 3/25/04 RCRA inspection reports for Missouri Tie & Timber should be reviewed for a detailed facility

process and waste stream description. A summary of the 3/7/01 and 3/25/04 inspections is as follows:

- The 3/7/01 Missouri Tie & Timber inspection involved sampling the wood preservative waste (a combined waste stream of process drippage, process residues, filter residue, and tank bottoms). The waste was analyzed for TCLP semi-volatiles, polycyclic aromatic hydrocarbons (PAHs), and TCLP metals. The wood treating waste did not exceed the TCLP regulatory limits, although it did contain high levels of PAHs that are also listed in 40 CFR Part 261 Appendix VIII. One of the criteria EPA uses to determine if a solid waste is listed as a hazardous waste is to determine if it contains any of the toxic constituents listed in 40 CFR Part 261 Appendix VIII. The constituents on the list have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms. Missouri Tie & Timber continues to manifests their creosote process waste as an F034 hazardous waste (see attachment 4). The waste shipped may also be hazardous if it contains any unused creosote, U051. According to the listing, U051 consists of discarded commercial chemical creosote products or off-specification commercial chemical creosote products. Mr. Flowers stated that they do not generate any unused creosote.

- The 3/25/04 inspections at both facilities involved a complaint investigation regarding creosote wood preservative releases on the roads between Missouri Tie & Timber and [redacted] It also included collecting a wood preservative waste sample from Missouri Tie & Timber that was analyzed for total semi-volatiles, including PAHs. [redacted] to the Missouri Tie & Timber wood preservative waste sample to determine if wood preservative releases had occurred. Based on the sampling results, it was determined that creosote releases had occurred.

The focus of this 9/15/09 sampling inspection was to collect samples at the same locations as the 3/25/04 inspections. [redacted] (i.e., if they have diminished considerably in this current sampling) and if the contaminant levels are now below health-based levels, then EPA can determine whether further action is required.

Missouri Tie & Timber submitted a Notification of Hazardous Waste Activity on 11/13/01. They notified as a small quantity generator (SQG) of F034 hazardous waste. [redacted] This RCRA database information was not updated for Missouri Tie & Timber, since it was a focused inspection and I did not review all their waste streams or visually inspect that facility.

4.2. Changes Since the Previous Inspections

I asked Mr. Flowers if they have had any process or chemical changes since the previous RCRA inspections. He noted the following changes, clarifications, and/or additional information:

Missouri Tie & Timber

- The name of the saw mill on-site is Reynolds Wood Products. Missouri Tie owns the green products (untreated wood) stored on-site. Missouri Tie & Timber owns the wood treatment facility on-site.
- There are seven full-time employees in addition to two managers.
- The Missouri Tie & Timber facility is about 40 acres total.
- As of about four to five months ago, Missouri Tie & Timber now uses a 50-50 creosote preservative blend for wood treatment. They purchase P1 Creosote Oil and Heavy Fuel Oil in bulk (see attachments 7 and 8 for MSDS). They then blend the two chemicals in a 50-50 blend (5000 gallons each) on-site.
- The creosote wood preservative waste is being manifested as F034 waste to Clean Harbors in Eldorado, AR (see attachment 4 for latest manifests).

[redacted]

operating day.

- [redacted]

5.0 Sampling

5.1. Purpose and Objective

The purpose and objective of the previous sampling inspections was discussed in the Quality Action Project Plan (QAPP) included in the previous inspection reports. As stated above, the purpose of this 9/15/09 focused sampling inspection was to collect samples at the same locations

as the previous 3/25/04 inspections. Based on the levels of contamination in the soil samples previously collected at [redacted] (i.e., if they have diminished considerably in this current sampling) and if the contaminant levels are now below health-based levels, then EPA can determine whether further action is required.

5.2. Weather Conditions

The weather was warm and cloudy. It had rained the previous day.

5.3. Sampling Procedures

In general, the sampling procedures were as discussed in the QAPP and the samples were collected as stated on the Field Sheets (see attachment 9).

5.4 Samples Collected / Sample Locations

The sample numbers and locations collected previously and during this current inspection are listed in Table #1 below. [redacted] The previous and current sampling locations were the same, except that the previous water samples were not repeated due to insufficient available water, the background sample was not repeated due to the use of previous data, [redacted]

TABLE #1

3/25/04 SAMPLE #	9/15/09 SAMPLE #	SAMPLE DESCRIPTION	3/25/04 PHOTO NUMBERS IN PREVIOUS INSPECTION REPORT	9/15/09 PHOTO NUMBERS
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
201/201FD	4544-1 / 4544-1FD	Missouri Tie & Timber - Creosote Preservative	(3 and 4 in Missouri Tie & Timber inspection report)	1 and 2
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

The field sheets which contain the sample descriptions and the Chain-of-Custody forms are included as attachments 9 and 11. Mr. Flowers did not request split samples when I offered, therefore they were not provided.

5.5 Analytical Results

The analytical results are included as attachment 12A and 12B. Attachment 12A includes the total semi-volatile data reported to the Reporting Limits (RL). Attachment 12B includes the total semi-volatile data reported to the minimum detection limits (MDLs) and the calculated TCLP semi-volatiles. To compare the levels of contamination in the samples previously collected on 3/25/04 to the current levels, the analytical results are listed in the table included as attachment 13. The following is a summary of the analytical results.

- The creosote preservative samples collected at Missouri Tie & Timber were less than the previous 3/25/04 values, except for the shaded boxes in attachment 13 for the creosote preservative samples #4544-1 and 4544-1FD. One constituent was higher than the previous 3/25/04 MDL and the remaining were not comparable. The results for the constituents that could not be compared were because the detected values or MDLs were less than the previous MDLs.

- The 4-methylphenol (*p*-creosol) constituent was detected in the Missouri Tie & Timber wood preservative samples at 530 and 490 mg/kg (see attachment 12A). This was above the TCLP regulatory limit of 200 mg/L. After receiving this analytical data, I also requested the TCLP semi-volatile results on the samples. The laboratory determined that the TCLP for 4-methylphenol was less than the regulatory limit of 200 mg/L based on laboratory procedures for calculating the TCLP (calculated by dividing the total by 20). However, 40 CFR 261.24 states that where the waste contains less than 0.5% filterable solids, the waste itself, after filtering, is considered to be the extract for TCLP analysis. Since the exact amount of filterable solids in the samples is unknown, **I recommend that a TCLP analysis be conducted on the wood preservative wastes at Missouri Tie & Timber.** The wood preservative wastes generated at Missouri Tie & Timber are discussed in the previous 3/7/01 inspection report. It should be noted as stated above, that the wood preservative wastes that are shipped off-site are currently being manifested as a F034 hazardous waste (although F034 is not listed for cresol). However, some creosote drippage was observed on the ground during the 3/7/01 Missouri Tie & Timber inspection.

- The soil sample constituents that have diminished since the previous inspection are the constituents where the detected values were lower than the previous detected values or where the MDLs were lower than the previous detected value.

- The soil sample constituents that have not diminished since the previous inspection are the constituents where the detected values were higher than the previous detected values or the previous MDLs; [redacted]

- For some of the soil sample constituents, it is unknown whether the values have diminished since the previous inspection because the values are not comparable. This would be the case for the following: (1) the detected values or MDLs were less than the previous MDLs; and (2) the MDLs were higher than the previous MDLs. [redacted]

- [redacted] Also, as stated in the previous 3/25/04 inspection report, one of the criteria used to determine if a solid waste is listed as a hazardous waste is to determine if it contains any of the toxic constituents listed in 40 CFR Part 261 Appendix VIII. The detected constituents in attachment 13 that are listed in Appendix VIII have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms.

5.5 QC Analysis

According to the QAPP, the acceptance limit for the precision assessed via field duplicates will be less than or equal to 50 percent relative percent difference. The precision was calculated for the detected PAHs. The relative percent difference falls within the acceptance limits (see attachment 14).

Dedriel Newsome

Dedriel L. Newsome
Environmental Engineer
Date: 11/13/09

Attachments

1. Entry / Exit Checklist (1 page)
2. Confidentiality Notice (1 page)
3. Receipt for Documents and Samples (1 page)
4. Creosote Waste Manifest (1 page)
[redacted]
7. P1 Creosote Oil MSDS (7 pages)
8. Heavy Fuel Oil (4 pages)
9. Field Sheets for 4544 and [redacted] (9 pages)
[redacted]
11. Chain-of-Custody for 4544 and [redacted] (2 pages)
12. Analytical Results for 4544 and [redacted]
    A. Results for 4544 and [redacted] Reported to the RL
        i. Results for 4544 and [redacted] Reported to the RL (6 pages)
        ii. Results for 4544 and [redacted] Reported to the RL (9 pages)
    B. Results for 4544 Reported to the MDLs (9 pages)
13. 3/25/04 and 9/15/09 Sampling Results Comparison Table (1 page)
14. QC Data (1 page)

Photo Log (2 pages)
[redacted]
Photographs (12 pages / 22 photos)

[redacted]

Facility: Missouri Tie Date: 9/15/09 Arrival time: ≈ 8:45 am

DRIVE-BY

1. Drive-by conducted from public right-of-way? ☐ Yes ☐ No

Facility Orientation

2. Determine the direction "North" with respect to the facility and provide a brief sketch of the layout and orientation (as can be viewed from the public right-of-way): →

3. Obvious concerns visible from public right-of-way (photos)? ☐ Yes ☑ No

- Containers
- Loading Areas
- Open Drums
- Unusual Odors
- Safety Concerns
- Tanks
- Unloading Areas
- Stressed Vegetation
- Obvious Discharges
- Other Concerns
- Processing Equipment
- Security Devices
- Unusual Staining
- Improper Disposal

SITE ENTRY AND INBRIEFING

1. ☐ Used main entrance ☐ Entered during normal operating hours ☐ Excessive delays (>15 minutes - denial of access?) - ☑ No
2. Facility Representative(s): Junior Flowers Title: Full Owner

Title:

3. Does representative have intimate knowledge of all waste management practices? ☐ Yes ☐ No How long in position?
4. **Introduction:**

☑ Presented credentials
☑ Verified presence at correct facility (checked address/I.D. #)
☑ Explained authority to conduct inspection (Section 3007 of RCRA)
☑ Explained the purpose, scope, and order of the inspection
☐ Explained documentation process - worksheets, checklists, photo's, notes, statements, etc
☑ Explained facility's right to claim CBI
☐ Explained responsibility to provide accurate information and provided copies of Section 1001 and 1002 U.S.C. to facility
☑ Identified personal safety considerations:
☐ Completed Multimedia screening checklist
☐ Provided SBREFA handout
☐ Obtained GPS reading

5. Was full access granted? ☑ Yes ☐ By facility representative Other (name):

☐ No - Access denied Name of person denying access: Time of denial:

Reason for denial, or limitations placed on access:

EXIT BRIEFING

1. Reviewed all data collected and documented all concerns or violations? ☑ Yes ☐ No

- Location of the violation, type and amount of waste involved, time frame, frequency, specific dates & when first started occurred
- Illegal units - unit location (diagram/picture), dimensions, conditions, construction material, gradient of the base (for spills), other information.
- Illegal disposal - how, when (each occurrence), where sent or disposed of, how shipped, who shipped, when shipped/disposed of, quantity

N/A ☐ Identified/verified violations from previous inspection were corrected (if applicable)
☐ Addressed all unresolved inspection related issues Focused Inspections
☑ Summarized findings and observations for the facility representatives

NOV issued? ☐ Yes ☑ No ☐ Violations clearly identified and explained, including: circumstances, location, and applicable regulations

Focused Compliance Inspection
☐ Explained the importance of a timely (14 day) and adequate response
☐ Explained that findings and observations are based on your current knowledge of RCRA and that the final findings may differ
☑ Explained that compliance officer will make the final compliance decisions and that all compliance questions should be directed toward them
☐ Explained that recommendations provided are for informational purposes only and ***DO NOT*** require specific actions by the facility None noted
☑ Provided facility with CBI form
☑ Prepared Document Receipt form

3. Specific information requested from facility? ☐ Yes ☑ No
4. Facility appears to have awareness of RCRA regulations and/or has its own environmental staff? ☐ Yes ☑ No
5. Facility has copy of applicable regulations? Internet access ☑ Yes ☐ No
6. Attitude and demeanor of facility representative(s): ☑ OK ☐ Not OK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CONFIDENTIALITY NOTICE

Facility Name [redacted]	
Address [redacted]	
Inspector (print) Oedrie Newsome	
U.S. EPA, Region VII, 901 N. 5th St., Kansas City, KS 66101	Date 9/15/09

The United States Environmental Protection Agency (EPA) is obligated, under the Freedom of Information Act, to release information collected during inspections to persons who submit requests for that information. The Freedom of Information Act does, however, have provisions that allow EPA to withhold certain confidential business information from public disclosure. To claim protection for information gathered during this inspection you must request that the information be held CONFIDENTIAL and substantiate your claim in writing by demonstrating that the information meets the requirements in 40 CFR 2, Subpart B. The following criteria in Subpart B must be met:

1. Your company has taken measures to protect the confidentiality of the information, and it intends to continue to take such measures.

2. No statute specifically requires disclosure of the information.

3. Disclosure of the information would cause substantial harm to your company's competitive position.

Information that you claim confidential will be held as such pending a determination of applicability by EPA.

I have received this Notice and DO NOT want to make a claim of confidentiality at this time.	
Facility Representative Provided Notice (print)	Signature/Date
Junior Flowers	Junior Flowers 9/15/09

I have received this Notice and DO want to make a claim of confidentiality.	
Facility Representative Provided Notice (print)	Signature/Date

Information for which confidential treatment is requested:

_____

_____

_____

_____

_____

(Rev:1/19/00)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RECEIPT FOR DOCUMENTS AND SAMPLES

[redacted]

Documents Collected? YES ✓ (list below) NO ___

Samples Collected? YES ✓ (list below) NO ___ Split Samples: YES ___ NO ✓

Documents/Samples were: 1) Received no charge ✓ 2) Borrowed ___ 3) Purchased ___

Amount Paid: $_____ Method: Cash ___ Voucher ___ To Be Billed ___

The documents and samples described below were collected in connection with the administration and enforcement of the applicable statute under which the information is obtained.

==========

Receipt for the document(s) and/or sample(s) described below is hereby acknowledged:

(1) MO Tie & Timber
Creosote MSDS (7 pgs)
Oil MSDS (4 pgs)
Sample # 1/1FD - Creosote Preservative
* Manifest (1 pg)

[redacted]

Facility Representative (print)	Signature/Date
Junior Flowers	9/15/09
Inspector (print)	Signature/Date
Dedriel Newsome	Dedriel Newsome 9/15/09
U.S. EPA, Region VII, 901 N. 5th Street, Kansas City, KS 66101	

(rev: 1/20/93)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
M O R 0 0 0 5 0 1 9 2 4	1	800-424-9300	004886265 JJK

GENERATOR

5. Generator's Name and Mailing Address
MISSOURI TIE & TIMBER
P O BOX 720
REYNOLDS, MO 63666
Generator's Phone: 573 648 2040

Generator's Site Address (if different than mailing address)
HWY 72 WEST

6. Transporter 1 Company Name
INTER-RAIL SYSTEMS, INC. (573)334-9437

U.S. EPA ID Number
I L R 0 0 0 1 1 8 1 9 0

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
CLEAN HARBORS EL DORADO, LLC
309 AMERICAN CIRCLE
EL DORADO, AR 71730
Facility's Phone: (870)863-7173

U.S. EPA ID Number
A R D 0 6 9 7 4 8 1 9 2

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, HAZARDOUS WASTE LIQUID, N.O.S., (CREOSOTE), 9, NA3082, PGIII, (ERG# 171), F034	7	D M	3500	P	F034		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
9b1) PROFILE# CH283285 SPENT CREOSOTE
TRANSPORTER#1: MO TRANS ID: H-2367 LICENSE PLATE# [illegible]

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name [illegible] Signature [signature] Month 7 Day 3 Year 09

INT'L

16. International Shipments ☑ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name [illegible] Signature [signature] Month 9 Day 3 Year 09

Transporter 2 Printed/Typed Name Signature Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name Signature Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

ATTACHMENT 4 Page 1 of 1

GENERATOR'S INITIAL COPY

Material Safety Data Sheet

CREOSOTE OIL

(AWPA P1/P13)

Version: 2 | Date Issued: 03/31/08 | MSDS No. 614839

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY:	KMG-Bernuth, Inc. 10611 Harwin, Suite 402 Houston, Texas 77036
PHONE NUMBER:	800-322-8177
EMERGENCY PHONE:	CHEMTREC: 1-800-424-9300
NAME USED ON LABEL:	Creosote Oil
PRODUCT USE:	Wood Preservative

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

IDENTITY	CAS NUMBER	TYPICAL %	OTHER INFORMATION
Coal Tar Creosote (AWPA P1/P13)	8001-58-9	98.5 %	Mixture of aromatic and heterocyclic hydrocarbons
Phenanthrene	85-01-8	< 14.15	Max. impurity level
Flouranthene	206-44-0	< 7.45	Max. impurity level
Pyrene	129-00-0	< 5.80	Max. impurity level
Acenaphthene	83-32-9	< 7.80	Max. impurity level
9H-Fluorene	86-73-7	<6.60	Max. impurity level
Naphthalene	91-20-3	< 16.15	Max. impurity level
Dibenzofuran	132-64-9	< 4.50	Max. impurity level
Anthracene	120-12-7	< 3.80	Max. impurity level
Benzo (a) anthracene	56-55-3	< 1.50	Max. impurity level
Chrysene	218-01-9	< 1.50	Max. impurity level
Biphenyl	95-52-4	< 1.50	Max. impurity level
Indeno (1,2,3-c,d) pyrene	193-39-5	< 0.10	Max. impurity level
Quinoline	91-22-5	< 0.06	Max. impurity level
Benzo (a) pyrene	50-32-8	< 0.40	Max. impurity level
p-Xylene	106-42-3	< 0.02	Max. impurity level
Benzo (b) fluoranthene	205-99-2	< 0.30	Max. impurity level
Benzo (j) fluoranthene	205-82-3	< 0.20	Max. impurity level
Benzo (k) fluoranthene	207-08-9	< 0.20	Max. impurity level

SECTION 3: HAZARDS IDENTIFICATION

PHYSICAL HAZARDS: Do not use or store neat heat or open flame. Close container after each use.

HEALTH HAZARDS: WARNINIG. May be fatal if swallowed, inhaled or absorbed through skin. Causes skin and eye irritation, which is accentuated by sunlight. May cause severe burns. Do not get in eyes, on skin or on clothing. Do not breath vapors or spray mist. Use with adequate ventilation. Do not take internally. Wash thoroughly after skin contact, before eating, drinking, use of tobacco products, or using restrooms.

SECTION 4: FIRST AID MEASURES

IF SWALLOWED: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

SECTION 4: FIRST AID MEASURES -- CONTINUED

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

IF IN EYES: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

HOTLINE NUMBER: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-322-8177 for emergency medical advice.

NOTE TO PHYSCIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia.

SECTION 5: FIREFIGHTING MEASURES

FLASH POINT: > 155° C (> 311° F) ASTM D-93 (Pensky Marten Closed Cup)

AUTOIGNITION TEMPERATURE: Product is not self-igniting.

FLAMMABLE LIMITS (STP): Not Determined

EXTINGUISHING MEDIA: For small fire, use dry chemical, carbon dioxide, water spray or foam. For large fire, preferably use water/fog. Alternatively, use foam. Cool containing vessels with water in order to prevent pressure build-up, auto-ignition or explosion. Contain run-off to prevent contamination of surface waters.

PROTECTIVE EQUIPMENT: Self-contained breathing apparatus with full facepiece and full protective clothing should be worn when fumes and/or smoke are present.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Noxious fumes (carbon monoxide, acrid smoke) may be emitted under fire conditions. Water sprays may cause frothing or eruption in closed tanks.

HMIS RATING: Health 2 Fire 1 Reactivity 1

NFPA RATING: Health 2 Fire 1 Reactivity 1

SECTION 6: ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR OTHER RELEASE: Wear long-sleeved shirt and long pants, rubber boots over shoes and socks, chemical resistant waterproof gloves, protective chemical safety goggles and a NIOSH-approved pesticide respirator or air-supplied respirator. Absorb with sand, earth, etc., sweep up and place in an approved chemical container. Use non-sparking tools and remove ignition sources. Do not allow product to contaminate surface waters and don't flush to sewer systems.

Dispose in accordance with applicable Federal, State ad local regulations. Contaminated materials must be handled and managed as s RCRA Hazardous Waste and treated before disposal in an approved landfill. This waste is

SECTION 6: ACCIDENTAL RELEASE MEASURES - CONTINUED

identified by the EPA as a U051 Hazardous Waste and must meet the treatment standards specified in 40 CFR 268, Subpart D. A RCRA Hazardous Waste Storage Permit is required for storage of wastes beyond 90 days.

SECTION 7: HANDLING AND STORAGE

DO NOT contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Keep closures tight and upright to prevent leakage. Keep container closed when not in use. Do not store above 140° F.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

WARNING: May be fatal if swallowed, inhaled or absorbed through skin. Causes skin and eye irritation, which is accentuated by sunlight. May cause severe burns. Do not get in eyes, on skin or on clothing. Do not breath vapors or spray mist. Use with adequate ventilation. Do not take internally. Wash thoroughly after skin contact, before eating, drinking, use of tobacco products, or using restrooms.

PERSONAL PROTECTIVE EQUIPMENT (PPE):
Examples of acceptable materials for protective clothing (e.g., gloves, overalls, jackets, and boots) required during application and handling of creosote are polyvinyl acetate (PVA), polyvinyl chloride (PVC), neoprene, butyl rubber, or nitrile.

Applicators and other handlers must wear:
- Long-sleeved shirt (or jacket) and long pants
- Shoes (or boots) plus socks
- Chemical resistant gloves
- Protective eyewear
- Chemical resistant apron or overalls

Additionally, for applicators who manually open pressure treatment cylinder doors, who enter such cylinders or related equipment or who are exposed to wood treatment vapors (see below for more details):
- Properly fitting, well-maintained, NIOSH-approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE prefilter.

Individuals must wear gloves impervious to the wood treatment formulations in all situations where dermal contact with creosote is expected (e.g. handling freshly treated wood and manually opening cylinder doors).

Individuals who manually open cylinder doors must wear gloves and a respirator.

Individuals who enter pressure treatment cylinders and other related equipment that is contaminated with wood treatment formulation (e.g., cylinders that are in operation or are not free of the treatment formulation) must wear protective clothing (including overalls, jacket, gloves, and boots) impervious to the wood treatment formulation and a respirator.

Avoid inhaling vapors. If inhalation of vapors cannot be avoided, applicators must wear a properly fitting, well-maintained half-mask cartridge or canister respirator which is NIOSH-approved.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION - CONTINUED

USER SAFETY REQUIREMENTS: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS: Applicators must not eat, drink, or use tobacco products during those parts of the application process that may expose them to the wood treatment formulation (manually opening/closing cylinder doors, moving trams out of cylinders, mixing chemicals, and handling freshly treated wood). Wash thoroughly after skin contact and before eating, drinking, use of tobacco products, or using restrooms.

Protective clothing must be changed when it shows signs of contamination. Applicators must leave protective clothing and work shoes or boots at the plant. Worn-out protective clothing and equipment must be disposed of in any general landfill, in the trash or in any other manner approved for pesticides.

OCCUPATIONAL EXPOSURE LIMITS:

OSHA TWA (benzene-soluble fraction)	0.2 mg/m^3
ACGIH TWA (benzene-soluble fraction)	0.2 mg/m^3
NIOSH recommended TWA 10 hours (cyclohexane-extractable fraction)	0.1 mg/m^3

OCCUPATIONAL EXPOSURE STANDARDS: Not established

VENTILATION: Use in areas of adequate natural ventilation or provide exhaust ventilation or other engineering controls to keep the airborne concentration of vapors below their respective threshold limit value.

EYE PROTECTION: See **PERSONAL PROTECTIVE EQUIPMENT (PPE)** above.

BODY PROTECTION: See **PERSONAL PROTECTIVE EQUIPMENT (PPE)** above.

RESPIRATORY PROTECTION: See **PERSONAL PROTECTIVE EQUIPMENT (PPE)** above.

OTHER PROTECTIVE EQUIPMENT: Eyewash station and safety shower in work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

FORMULATION:	Concentrate
PHYSICAL STATE:	Oily, viscous liquid
COLOR:	Dark Brown
ODOR:	Strong aromatic, tar-like
BOILING POINT:	>194° C (>381° F)
MELTING POINT:	Not applicable
FREEZING POINT:	Not available
VAPOR PRESSURE:	~13 mm Hg @ 25° C
VAPOR DENSITY:	>1.0 (air = 1.0)
EVAPORATION RATE:	<1.0 (Butyl acetate = 1.0)
SPECIFIC GRAVITY:	1.03 – 1.18 (Avg. = 1.09)
BULK DENSITY:	8.60 – 9.85 lbs/gal (Avg. = 9.1 lbs/gal)
SOLUBILITY IN WATER:	Insoluble (~322 ug/mL)
pH VALUE:	7-8
% VOLATILES:	475 g/l (3.96 lbs/gal)

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Stable
CONDITIONS TO AVOID:	Excessive heat and open flame
MATERIALS TO AVOID:	Strong acids, especially chlorosulfonic acid
HAZARDOUS DECOMPOSITION PRODUCTS:	Oxides of carbon. Incomplete combustion may lead to formation of carbon monoxides and/or other asphyxiates.
HAZARDOUS POLYMERIZATION:	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE ORAL LD_{50}:	725 mg/kg (rat) 433 mg/kg (mouse)
ACUTE DERMAL LD_{50}:	7950 mg/kg (species not identified)

EFFECTS OF OVEREXPOSURE:
Acute overexposure may be fatal if swallowed, inhaled or absorbed through skin. Causes skin and eye irritation, which is accentuated by sunlight. May cause severe burns. Do not get in eyes, on skin or on clothing. Do not breath vapors or spray mist. Use with adequate ventilation.
Ingestion: Irritation of the gastrointestinal tract followed by nausea and vomiting, abdominal discomfort, rapid pulse, etc. May be fatal.
Inhalation: May cause irritation to the respiratory tract, dizziness, respiratory difficulty, convulsions. May be fatal.
Eyes: May cause irritation, which is accentuated by sunlight and may cause severe corneal injury, including keratitis, conjunctivitis and corneal abrasion.
Skin: May cause irritation, which is accentuated by sunlight and may cause severe burns.

Cancer Hazard: Prolonged and repeated skin exposure over many years in the absence of recommended hygienic practices may lead to changes in skin pigmentation, benign skin growth and in some cases, result in skin cancer. In addition, prolonged and repeated breathing of product vapor at levels above the recommended exposure level may present a lung cancer risk.

Creosote is listed as and NTB carcinogen, an IRC probable carcinogen.

SECTION 12: ECOLOGICAL INFORMATION

MARINE POLLUTANT: This product is toxic to fish and wildlife. Do not apply directly to any body of water or wetlands. Do not contaminate water by cleaning equipment or disposal of wastes. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

MATERIAL SAFETY DATA SHEET
CREOSOTE OIL
(AWPA P1/P13)

SECTION 13: DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Dispose in accordance with applicable Federal, State ad local regulations. Product wastes must be handled and managed as s RCRA Hazardous Waste and treated before disposal in an approved landfill. This waste is identified by the EPA as a U051 Hazardous Waste and must meet the treatment standards specified in 40 CFR 268, Subpart D. A RCRA Hazardous Waste Storage Permit is required for storage of wastes beyond 90 days.

CONTAINER DISPOSAL: Bulk Tanks: Triple rinse (or equivalent) and wash with appropriate cleaners before reusing.

TREATED WOOD DISPOSAL: Wood which has been treated with this product should be discarded by burial or ordinary trash collection. Do not burn treated wood in an outdoor fire or in stoves or fireplaces because toxic chemicals may be produced as part of the smoke and ashes.

SECTION 14: TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: UN 3082, Environmentally Hazardous Substance, Liquid, N.O.S. (Creosote), 9, III, Marine Pollutant (Creosote), RQ (Creosote)

SECTION 15: REGULATORY INFORMATION

UNITED STATES EPA: EPA Reg. No. 61483-9
EPA Signal Word – WARNING

OTHER:
SARA 311 Hazards Classification: Immediate, Delayed, Fire
SARA 313 Toxic Chemicals: See Section 2 for list of chemicals, CAS numbers and maximum concentration by % weight.
REPORTABLE QUANTITIES: Creosote – 8001-58-9: 1 pound
CALIFORNIA PROPOSITION 65 – Contains chemicals known to the state to cause cancer or reproductive toxicity.

WHMIS CLASSIFICATION (CANADA): Class D, Division 2, Subdivision A, very toxic material.

MATERIAL SAFETY DATA SHEET
CREOSOTE OIL
(AWPA P1/P13)

SECTION 16: OTHER INFORMATION

Reason for MSDS Revision: General periodic review and update.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof KMG-Bernuth, Inc. (Company). makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Company be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

MSDS No.: 614839
Revision No.: 2
Supersedes: March 24, 2005
Date: March 31, 2008
Prepared by Scott Hathorn III
Approved by Scott Hathorn III

MATERIAL SAFETY DATA SHEET

MSDS # 61-AS4

SINCLAIR HEAVY FUEL OIL

TRADE NAME: **Heavy Fuel Oil**

APPLICATIONS: Fuel in boilers and heaters

SYNONYMS: Slurry, No. 5 Fuel Oil, decant, Low Sulfur No. 6, High Sulfur No. 6, No. 6 Fuel Oil

CAS REGISTRY #: 64741-62-4

CHEMICAL FAMILY: Hydrocarbon Mixture

EMERGENCY PHONE: CHEMTREC – (800) 424-9300 or (703) 527-3887 (collect)

SUPPLIER: Sinclair Oil Corporation
P.O. Box 30825
Salt Lake City, Utah 84130

TELEPHONE / FAX: (888) 340-3466 / (801) 524-2740

COMPONENTS:	CAS#	Typical wt.%
Cracked Heavy Oil	64741-62-4	Up to 99
No. 2 Diesel	68476-34-6	0-10
Flux	68512-62-9	0-50
Napthalene	91-20-3	0-2

APPEARANCE: **Thick Dark Brown Oil**

PHYSICAL STATE: Liquid

ODOR: Strong Hydrocarbon

EMERGENCY OVERVIEW: Can cause Eye and Skin Irritation. Avoid prolonged contact with eyes, skin, and clothing.

POTENTIAL HEALTH EFFECTS

INHALATION: None expected under normal conditions, use with adequate ventilation

EYE CONTACT: May cause eye irritation.

SKIN CONTACT: Repeated skin contact with components of this material may cause harmful effects.

INGESTION: Based on animal testing, the oral acute toxicity is presumed to be slight to moderate.

INHALATION: Remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists. If breathing stops, use resuscitation measures

EYE CONTACT: Flush immediately with water for at least 15 minutes. Seek medical attention promptly.

SKIN CONTACT: Wash contact areas with soap and water. Launder contaminated clothing before reuse. Discard contaminated leather articles.

INGESTION: Do not induce vomiting. Seek medical assistance promptly.

FLASH POINT (°F): 150 °F

FLAMMABLE LIMITS: LEL – 1% UEL – 5%

AUTOIGNITION TEMPERATURE: 765°F

FLAMMABILTY CLASSIFICATION: Flammable Liquid

GENERAL HAZARD: Incomplete burning can produce carbon monoxide. Water or foam may cause frothing, which can be violent and endanger fire fighters, especially if sprayed into containers of hot liquids.

FIRE FIGHTING INSTRUCTIONS: Keep personnel removed from and up-wind of fire. Use CO_2, foam, dry chemical, Halon, or water fog. Cool adjacent structures and storage drums with water spray. Evacuate area. Prevent runoff from fire control dilution from entering streams or drinking water supply.

FIRE FIGHTING EQUIPMENT: HAZARDOUS COMBUSTION PRODUCTS: Use of SCBA in enclosed or confined spaces, or as other wise needed (Bunker gear).

Hazardous Decomposition Products: May produce carbon monoxide with incomplete burning.

LAND SPILL: Treat spill as an oil spill. Eliminate all sources of ignition. Remove leaking containers to a safe area. Contain and remove by mechanical means. Guard against contamination of water supplies. Solidified asphalt can be scraped up from the ground using mechanical dredges or lifts. Runoff may create fire or explosion hazard in sewers. Report spills to appropriate authorities. Dispose of in accordance with Federal, State, and Local regulations.

WATER SPILL: Solidified asphalt may be removed from water with mechanical dredges or lifts. Runoff may create fire or explosion hazard in sewers. Report spills to appropriate authorities. Dispose of in accordance with Federal, State, and Local regulations. Avoid breathing the vapors.

HANDLING / STORAGE: Store away from ignition sources in a cool area. When material is heated to application temperatures, precautions should be taken to prevent thermal burns.

ENGINEERING CONTROLS: Provide ventilation sufficient to prevent exceeding recommended exposure limits

PERSONAL PROTECTION:

PROTECTIVE CLOTHING: Use whole body protection, including impervious gloves, boots. Eye and face protection is recommended when contact with material may occur.

RESPIRATOR: Approved respiratory protection must be used when vapor or mist concentrations are unknown or exceed the TLV. Avoid prolonged or repeated breathing of vapor or mists.

OCUPATIONAL EXPOSURE LIMITS

COMPONENT	LIMIT	TWA	STEL	CEILING	NOTATION	OTHER
Asphalt Vapors	OSHA PEL	0.5mg/M^3			A4	
Napthalene	OSHA PEL	10 ppm				

A1= Confirmed Human Carcinogen
A3= Confirmed Animal Carcinogen with Unknown Relevance to Humans
A4= Not Classified as a Human Carcinogen
CNS= Central Nervous System
Skin= Absorption through the skin may contribute to overall exposure

APPEARANCE/PHYSICAL STATE: Liquid

COLOR: Brown

DENSITY/SPECIFIC GRAVITY (g/ml): 0.9 – 1.1

VAPOR DENSITY (air=1): Greater than 1

VAPOR PRESSURE: NA

BOILING POINT/RANGE: 600 °F

SOLUBILITY IN WATER: No

VISCOSITY: N/A/F

pH : N/A

FREEZING POINT: NA

GENERAL: This product is stable

INCOMPATIBLE MATERIALS AND CONDITIONS TO AVOID: Avoid Strong oxidizers, acids and alkalis

HAZARDOUS DECOMPOSITION: Incomplete burning can produce carbon monoxide.

SYSTEMIC: Petroleum-derived fuels and fuel oils are complex and variable mixtures of hydrocarbons. In general, the more viscous the mixture, the less toxic it will be. At high-level exposures, humans experience multiple organ failures, some of which may be due to hypoxia and secondary to the failure of other organ systems. In humans kidney failure has been noted only at high, acute levels of exposures, and appears reversible. Liver enzymes may be transiently elevated. At lower level exposures, most acute health effects are reversible. People can be exposed by inhalation, ingestion and dermal contact. Frequently, people are exposed by combined dermal and inhalation exposure.

ACUTE: Heavy fuel oil is less acutely toxic than other petroleum derived fuels.

Inhalation: : Headaches, confusion, disorientation, blurred vision occur with inhalation. Higher exposures may cause hallucinations, CNS excitation, drowsiness, CNS depression. Seizure and coma occur from very high exposures and death may result from respiratory depression. ECG changes, cardiac arrhythmias, tachycardia, shock and cardiovascular collapse can occur. Pneumonia, pulmonary edema and hemorrhages can occur.

Ingestion: Central nervous system, cardiovascular, and respiratory effects have been reported with acute exposures to various hydrocarbon fuels and oils similar to those reported with inhalation. Nausea, vomiting, cramping and diarrhea may occur.

Eye: Conjunctivitis and burning, watery eyes have been reported in acute exposures to various hydrocarbon fuels and oils

Skin: Mild erythema to full thickness chemical burns have occurred after prolonged exposure to various hydrocarbon fuels and oils.

CHRONIC: Chronic exposure results in kidney damage in male rats. However, this damage appears to be related to a protein produced in large amounts in male rats, but not in humans or female rats. Occupational exposures in petroleum refining are considered Group 2A (probably carcinogenic) by IARC.

RCRA: Disposal of this product or material contaminated with product may be regulated by RCRA due to the characteristic of ignitability.

EPA Hazard Class: Acute Hazard/Chronic Hazard/Fire Hazard.
Dispose of in accordance with Federal, State, and Local regulations.

DOT (Department of Transportation):

PROPER SHIPPING NAME: Hot Fuel Oil

HAZARD CLASS: 3

IDENTIFICATION NUMBER: UN 1993 PG III

NAERG98 NUMBER: 128

CERCLA (Comprehensive Environmental Response Compensation and Liability Act): Naphthalene is a hazardous substance under CERCLA and therefore subject to emergency notification requirements.

SARA TITLE III (Superfund Amendments and Reauthorization Act): Naphthalene is subject to SARA Title III, Sections 311 and 312, which require MSDS reporting and Hazardous Chemical Inventory reporting. Naphthalene is also subject to SARA Title III, Section 313, which requires Chemical Release reporting.

NFPA 704/HMIS:

Health – 0 Flammability – 2 Reactivity – 0
(0 = insignificant, 1 = slight, 2 = moderate, 3 = high, 4 = extreme)

REVISION SUMMARY:
Complete review of MSDS, December 2005.

THIS PRODUCT MATERIAL SAFETY DATA SHEET PROVIDES HEALTH AND SAFETY INFORMATION. THE PRODUCT SHOULD BE USED IN APPLICATIONS CONSISTENT WITH THIS PRODUCT LITERATURE. FOR ANY OTHER USES, EXPOSURES SHOULD BE EVALUATED SO THAT APPROPRIATE HADLING PRACTICES AND TRAINING PROGRAMS CAN BE ESTABLISHED TO ENSURE SAFE WORKPLACE OPERATIONS.

THIS MATERIAL SAFETY DATA SHEET IS PROVIDED IN GOOD FAITH AND MEETS THE REQUIREMENTS OF THE HAZARDOUS COMMUNICATION PROVISIONS OF SARA TITLE III AND 29CFR1910.1200(g) OF THE OSHA REGULATIONS. THE ABOVE INFORMATION IS BASED ON REVIEW OF AVAILABLE INFORMATION SINCLAIR BELIEVES IS RELIABLE AND IS SUPPLIED FOR INFORMATIONAL PURPOSES ONLY. SINCLAIR DOES NOT GUARANTEE ITS COMPLETENESS OR ACCURACY. SINCE CONDITIONS OF USE ARE OUTSIDE THE CONTROL OF SINCLAIR, SINCLAIR DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, AND ANY LIABILITY FOR DAMAGE OR INJURY WHICH RESULTS FROM THE USE OF THE ABOVE DATA. NOTHING HEREIN IS INTENDED TO PERMIT INFRINGEMENT OF VALID PATENTS AND LICENSES.

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 4544 **Sample Number:** 1 **QC Code:** __ **Matrix:** Waste **Tag ID:** 4544-1-__

Project ID: DNSTCORMO **Project Manager:** Dedriel Newsome
Project Desc: [redacted] - Woodtreater facility (Reynolds, MO.) Inspection
City: Reynolds **State:** Missouri
Program: RCRA Enforcement

Location Desc: Missouri Tie - East Catch Vat Tank for Treatment Cylinder #1 (North east Door)
Storet ID: _____ **External Sample Number:** _____

Expected Conc: (or Circle One: Low Medium (High) ~100% Creosote and Oil (PAHs)) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 9/15/09 9:35
Longitude: ___ ___ ___ **End:** 9/15/09 9:36

Laboratory Analyses:

Container	Preservative	Holding Time	Analysis
1 - 4 oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Hazardous Waste

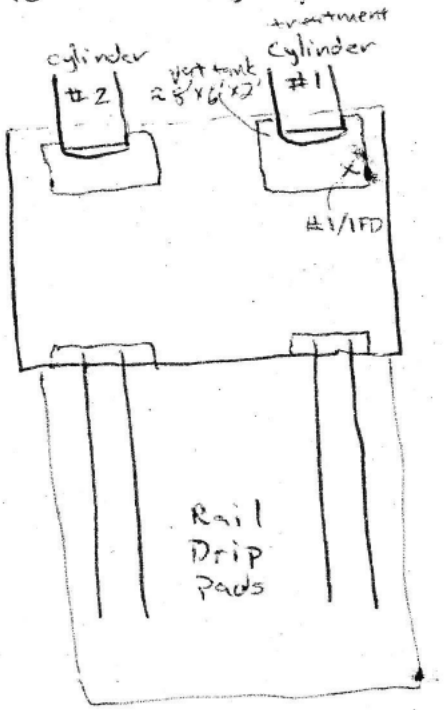
Sample Comments:

(N/A)
Dark black oily liquid, with some gelled liquid. Liquid from directly below east cylinder #1 door from treatment cylinder #1. Smelled like creosote. The catch vat tank had ≈ 12" (Mr. Flowers says ≈ 50 gal) of creosote in it at time of sampling.

Sample collected in a 32 oz wide mouth jar by dipping it into the catch vat tank & then splitting into 2 - 8oz jars.

photos 1 & 2

→N



Sample Collected By: ~~DN~~ TJW Jim Aycock

Sample Collection Field Sheet
US EPA Region 7
Kansas City, KS

ASR Number: 4544 **Sample Number:** ~~2~~ 1 DN **QC Code:** FD **Matrix:** Waste **Tag ID:** 4544-~~2~~ 1 DN - FD

Project ID: DNSTCORMO **Project Manager:** Dedriel Newsome
Project Desc: [redacted] - Woodtreater facility (Reynolds, MO.) Inspection
City: Reynolds **State:** Missouri
Program: RCRA Enforcement

Location Desc: Field Duplicate of #1

Storet ID: _____ **External Sample Number:** _____

Expected Conc: (or Circle One: Low Medium High) **Date** **Time(24 hr)**

Latitude: ___ ___ ___ **Sample Collection: Start:** 9/15/09 9:35
Longitude: ___ ___ ___ **End:** 9/15/09 9:36

Laboratory Analyses:

~~3~~ 1 ✓ Container	Preservative	Holding Time	Analysis
1 - ~~4~~ oz glass	4 Deg C	14 Days	1 Semi-Volatile Organic Compounds in Hazardous Waste

Sample Comments:

(N/A)

See Field Sheet #1

Sample Collected By: ~~DN~~ DN Jim Aycock

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION	SHEET
Dedriel Newsome	[redacted]	15 (DAY) 9 (MONTH) 09 (YEAR)	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	CUBITAINER	8oz BOTTLE	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	TYPE OF CONTAINERS — NUMBERS OF CONTAINERS PER SAMPLE NUMBER					SAMPLED MEDIA					
4544-1		1								√	creosote preservative
4544-1FD		1								√	" "
Nothing Follows											
											Clr. Temp. Rec'd. be 0-10 — 9/16/09

Complete

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
2 PIECE(S) CONSISTING OF ____ BOX(ES)	____ COMMERCIAL CARRIER: ____
1 ICE CHEST(S): OTHER 4 ASR # 4545	____ COURIER
	X SAMPLER CONVEYED ____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Dedriel Newsome — X SEALED ☐ UNSEALED	9/16/09	12:15	Nicole Cobb — X SEALED ☐ UNSEALED	Analy—
RELINQUISHED BY — ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY — ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY — ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY — ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

7-EPA-9262(Revised 5/85)

ACM

CHAIN OF CUSTODY RECORD
ENVIRONMENTAL PROTECTION AGENCY REGION VII

ACTIVITY LEADER(Print)	NAME OF SURVEY OR ACTIVITY	DATE OF COLLECTION (DAY / MONTH / YEAR)	SHEET
Dedriel Newsome	[redacted]	15 / 9 / 09	1 of 1

CONTENTS OF SHIPMENT

SAMPLE NUMBER	CUBITAINER	8oz BOTTLE	BOTTLE	BOTTLE	VOA SET (2 VIALS EA)	water	soil	sediment	dust	other	RECEIVING LABORATORY REMARKS/OTHER INFORMATION (condition of samples upon receipt, other sample numbers, etc.)
	NUMBERS OF CONTAINERS PER SAMPLE NUMBER										
4544-1		1								√	creosote preservative
4544-1FD		1								√	"
—Nothing Follows—											
											Cl, Temp, Recd. Ice. 0.1°C 9/16/09

Complete

DESCRIPTION OF SHIPMENT	MODE OF SHIPMENT
2 PIECE(S) CONSISTING OF ____ BOX(ES)	____ COMMERCIAL CARRIER: ____
1 ICE CHEST(S); OTHER 1 Acc # 4545	____ COURIER
	X SAMPLER CONVEYED ____ (SHIPPING DOCUMENT NUMBER)

PERSONNEL CUSTODY RECORD

RELINQUISHED BY (SAMPLER)	DATE	TIME	RECEIVED BY	REASON FOR CHANGE OF CUSTODY
Dedriel Newsome ☑ SEALED ☐ UNSEALED	9/16/09	11:15	Nicole Cole ☐ SEALED ☐ UNSEALED	
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY
RELINQUISHED BY ☐ SEALED ☐ UNSEALED	DATE	TIME	RECEIVED BY ☐ SEALED ☐ UNSEALED	REASON FOR CHANGE OF CUSTODY

7-EPA-9262(Revised 5/85)

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, KS 66101

Date: OCT 23 2009

Subject: Transmittal of Sample Analysis Results for ASR #: 4544

Project ID: DNSTCORMO

Project Description: [redacted] Compa[redacted] - Woodtreater facility (Reynolds, MO.) Inspection

From: Michael F. Davis, Chief
Chemical Analysis and Response Branch, Environmental Services Division

To:
Dedriel Newsome
ENSV/ARCM

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

Attachment DA1

Project Manager: Dedriel Newsome **Org:** ENSV/ARCM **Phone:** 913-551-7049

Project ID: DNSTCORMO

Project Desc: [redacted] - Woodtreater facility (Reynolds, MO.) Inspection

Location: Reynolds **State:** Missouri **Program:** RCRA Enforcement

Purpose: Site Characterization **GPRA PRC:** 501E50C

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

__ = Field Sample
FD = Field Duplicate

Units: Specific units in which results are reported.

mg/kg = Milligrams per Kilogram

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.
U = The analyte was not detected at or above the reporting limit.
UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

ASR Number: 4544 **Sample Information Summary** **10/23/2009**

Project ID: DNSTCORMO **Project Desc:** [redacted]. - Woodtreater facility (Reynolds, MO.) Inspection

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1	__	Waste	Missouri Tie - East catch vat tank for Treatment cylinder #1 (NE Door)		09/15/2009	09:35	09/15/2009	09:36	09/16/2009
1	FD	Waste	Missouri Tie/Field Duplicate of sample 1		09/15/2009	09:35	09/15/2009	09:26	09/16/2009

Analysis	Comments About Results For This Analysis

1 Semi-Volatile Organic Compounds in Hazardous Waste

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3230.2F

Samples: 1-__ 1-FD

Comments:

Laboratory Control Standards:
These hazardous samples were prepared by dilution, gpc clean-up, and analyzed. As there was no extraction efficiency to monitor, there was no Laboratory Control Standard prepared. Note the gel permeation column check standard was used to qualify analyte recoveries post gpc and sample processing, and a Laboratory Duplicate was used to assess repeatability.

4-Nitrophenol was UJ-coded in samples <1, and 1-fd>. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications. The actual reporting limit for this analyte may be higher than the reported value.

bis(2-Chloroisopropyl)ether was UJ-coded in samples <1, and 1-fd>. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the gel permeation control sample. The actual reporting limit for this analyte may be higher than the reported value.

ASR Number: 4544 **RLAB Approved Sample Analysis Results** **10/23/2009**

Project ID: DNSTCORMO **Project Desc:** [redacted] - Woodtreater facility (Reynolds, MO.) Inspection

Analysis/ Analyte	Units	1-__	1-FD
1 Semi-Volatile Organic Compounds in Hazardous Waste			
Acenaphthene	mg/kg	15000	14000
Acenaphthylene	mg/kg	340 U	320 U
Anthracene	mg/kg	8600	8100
Benzo(a)anthracene	mg/kg	4200	3900
Benzo(a)pyrene	mg/kg	1900	1800
Benzo(b)fluoranthene	mg/kg	2200	2100
Benzo(g,h,i)perylene	mg/kg	340 U	320 U
Benzo(k)fluoranthene	mg/kg	770	680
Benzoic acid	mg/kg	840 U	800 U
Benzyl alcohol	mg/kg	340 U	320 U
bis(2-Chloroethoxy)methane	mg/kg	340 U	320 U
bis(2-Chloroethyl)ether	mg/kg	340 U	320 U
bis(2-Chloroisopropyl)ether	mg/kg	340 UJ	320 UJ
bis(2-Ethylhexyl)phthalate	mg/kg	340 U	320 U
4-Bromophenyl-phenylether	mg/kg	340 U	320 U
Butylbenzylphthalate	mg/kg	340 U	320 U
Carbazole	mg/kg	6500	6100
4-Chloro-3-methylphenol	mg/kg	340 U	320 U
4-Chloroaniline	mg/kg	340 U	320 U
2-Chloronaphthalene	mg/kg	340 U	320 U
2-Chlorophenol	mg/kg	340 U	320 U
4-Chlorophenyl-phenylether	mg/kg	340 U	320 U
Chrysene	mg/kg	4600	4500
Di-n-butylphthalate	mg/kg	340 U	320 U
Di-n-octylphthalate	mg/kg	340 U	320 U
Dibenz(a,h)anthracene	mg/kg	340 U	320 U
Dibenzofuran	mg/kg	10000	8800
1,2-Dichlorobenzene	mg/kg	340 U	320 U
1,3-Dichlorobenzene	mg/kg	340 U	320 U
1,4-Dichlorobenzene	mg/kg	340 U	320 U
3,3'-Dichlorobenzidine	mg/kg	340 U	320 U
2,4-Dichlorophenol	mg/kg	340 U	320 U
Diethylphthalate	mg/kg	340 U	320 U
2,4-Dimethylphenol	mg/kg	510	470
Dimethylphthalate	mg/kg	340 U	320 U
4,6-Dinitro-2-methylphenol	mg/kg	840 U	800 U
2,4-Dinitrophenol	mg/kg	1700 U	1600 U
2,4-Dinitrotoluene	mg/kg	340 U	320 U
2,6-Dinitrotoluene	mg/kg	340 U	320 U
Fluoranthene	mg/kg	21000	20000
Fluorene	mg/kg	15000	14000
Hexachlorobenzene	mg/kg	340 U	320 U
Hexachlorobutadiene	mg/kg	340 U	320 U
Hexachlorocyclopentadiene	mg/kg	340 U	320 U
Hexachloroethane	mg/kg	340 U	320 U

Analysis/ Analyte	Units	1-__	1-FD
Indeno(1,2,3-cd)pyrene	mg/kg	430	370
Isophorone	mg/kg	340 U	320 U
2-Methylnaphthalene	mg/kg	24000	22000
2-Methylphenol	mg/kg	340 U	320 U
4-Methylphenol	mg/kg	530	490
Naphthalene	mg/kg	26000	24000
2-Nitroaniline	mg/kg	340 U	320 U
3-Nitroaniline	mg/kg	340 U	320 U
4-Nitroaniline	mg/kg	840 U	800 U
Nitrobenzene	mg/kg	340 U	320 U
2-Nitrophenol	mg/kg	340 U	320 U
4-Nitrophenol	mg/kg	840 UJ	800 UJ
N-nitroso-di-n-propylamine	mg/kg	340 U	320 U
N-nitrosodiphenylamine	mg/kg	340 U	320 U
Pentachlorophenol	mg/kg	840 U	800 U
Phenanthrene	mg/kg	46000	43000
Phenol	mg/kg	400	370
Pyrene	mg/kg	12000	12000
1,2,4-Trichlorobenzene	mg/kg	340 U	320 U
2,4,5-Trichlorophenol	mg/kg	340 U	320 U
2,4,6-Trichlorophenol	mg/kg	340 U	320 U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

NOV 0 2 2009

MEMORANDUM

Subject: Modified Data Transmittal for ASR #4544
Project ID: DNSTCORMO
Project Description: [redacted] – Woodtreater facility
(Reynolds, MO.) Inspection

From: Michael F. Davis, Chief
Chemical Analysis and Response Branch
Environmental Services Division

To: Dedriel Newsome
ENSV/ARCM

Attached is the modified data transmittal for ASR #4544.

After review, verification and transmittal of the subject data, the Project Manager (Dedriel Newsome) requested that data be reported to the Method Detection Limit (MDL) instead of the Reporting Limits (RL) for all Semi-Volatile analytes. Analytes detected between the MDL and the RL were J-coded, analytes not detected were reported at the MDL with a UJ-code and analytes without an MDL determination were reported to the RL with a U-code.

In addition, the PM requested that sample 1 be reanalyzed and reported for TCLP Semi-Volatiles in Hazardous waste.

Please contact Margie St. Germain (ext. 5154) with any questions or concerns.

Attachment

United States Environmental Protection Agency
Region 7
901 N. 5th Street
Kansas City, KS 66101

Date: NOV 0 2 2009

Subject: Transmittal of Sample Analysis Results for ASR #: 4544

Project ID: DNSTCORMO

Project Description: [redacted]pa[redacted] - Woodtreater facility (Reynolds, MO.)
Inspection

From: Michael F. Davis, Chief
Chemical Analysis and Response Branch, Environmental Services Division

To:
Dedriel Newsome
ENSV/ARCM

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the enclosed Customer Satisfaction Survey and Data Disposition/Sample Release memo for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Data Disposition/Sample Release memo.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Enclosures

cc: Analytical Data File.

Project Manager: Dedriel Newsome **Org:** ENSV/ARCM **Phone:** 913-551-7049

Project ID: DNSTCORMO

Project Desc: [redacted] - Woodtreater facility (Reynolds, MO.) Inspection

Location: Reynolds **State:** Missouri **Program:** RCRA Enforcement

Purpose: Site Characterization **GPRA PRC:** 501E50C

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose.

__ = Field Sample
FD = Field Duplicate

Units: Specific units in which results are reported.

mg/L = Milligrams per Liter
mg/kg = Milligrams per Kilogram

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank)= Values have been reviewed and found acceptable for use.
J = The identification of the analyte is acceptable; the reported value is an estimate.
K = The identification of the analyte is acceptable; the reported value may be biased high. The actual value is expected to be less than the reported value.
O = Parameter not analyzed.
U = The analyte was not detected at or above the reporting limit.
UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

ASR Number: 4544 **Sample Information Summary** **10/23/2009**

Project ID: DNSTCORMO **Project Desc:** [redacted] - Woodtreater facility (Reynolds, MO.) Inspection

Sample No	QC Code	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1	__	Waste	Missouri Tie - East catch vat tank for Treatment cylinder #1 (NE Door)		09/15/2009	09:35	09/15/2009	09:36	09/16/2009
1	FD	Waste	Missouri Tie/Field Duplicate of sample 1		09/15/2009	09:35	09/15/2009	09:26	09/16/2009

Analysis	Comments About Results For This Analysis

1 Semi-Volatile Organic Compounds in Hazardous Waste

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3230.2F

Samples: 1-__ 1-FD

Comments:

These data have been amended to correct the reporting limits, and report down to the method detection limits. Analytes detected between the MDL and the reporting limit were J coded. Analytes not detected were reported at the MDL with a UJ code. Analytes without an MDL determination were reported to the reporting limit with a U code. (Note MB is in ug/kg, ASR4454-1, 1-ld, and 1-fd are in mg/kg.)
KTJ added 29OCT09

Laboratory Control Standards:
These hazardous samples were prepared by dilution, gpc clean-up, and analyzed. As there was no extraction efficiency to monitor, there was no Laboratory Control Standard prepared. Note the gel permeation column check standard was used to qualify analyte recoveries post gpc and sample processing, and a Laboratory Duplicate was used to assess repeatability.

4-Nitrophenol was UJ-coded in samples <1, and 1-fd>. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to the continuing calibration check not meeting accuracy specifications. The actual reporting limit for this analyte may be higher than the reported value.

bis(2-Chloroisopropyl)ether was UJ-coded in samples <1, and 1-fd>. This analyte was not found in the samples at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the gel permeation control sample. The actual reporting limit for this analyte may be higher than the reported value.

1 TCLP Semi-Volatiles in Hazardous

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3230.2F applied to TCLP extracts

Samples: 1-__

Comments:

The original viscous liquid sample 4544-1 was visually determined to contain less than 5% solids. The TCLP sample data are reported as theoretical tumble values, based on data from Semivoa Hazardous sample determinations. See attached worksheets for data conversions and regulatory limits.

The results for this TCLP analysis of sample were K-coded at the RCRA TCLP action level of the analytes. The analyses of the total analytes in these samples determined that the RCRA action level could not have been exceeded for any of the TCLP analytes.

Analysis	Comments About Results For This Analysis

The results for this TCLP analysis of sample were O-coded in cases where the RCRA action level was below that of the method reporting limit.

The sample was not assessed for Pyridine.

Analysis/ Analyte	Units	1-__	1-FD
1 Semi-Volatile Organic Compounds in Hazardous Waste			
Acenaphthene	mg/kg	15000	14000
Acenaphthylene	mg/kg	72 J	68 J
Anthracene	mg/kg	8600	8100
Benzo(a)anthracene	mg/kg	4200	3900
Benzo(a)pyrene	mg/kg	1900	1800
Benzo(b)fluoranthene	mg/kg	2200	2100
Benzo(g,h,i)perylene	mg/kg	230 J	300 J
Benzo(k)fluoranthene	mg/kg	770	680
Benzoic acid	mg/kg	1000 UJ	960 UJ
Benzyl alcohol	mg/kg	240 UJ	220 UJ
bis(2-Chloroethoxy)methane	mg/kg	100 UJ	96 UJ
bis(2-Chloroethyl)ether	mg/kg	140 UJ	140 UJ
bis(2-Chloroisopropyl)ether	mg/kg	110 UJ	100 UJ
bis(2-Ethylhexyl)phthalate	mg/kg	100 UJ	96 UJ
4-Bromophenyl-phenylether	mg/kg	84 UJ	80 UJ
Butylbenzylphthalate	mg/kg	67 UJ	64 UJ
Carbazole	mg/kg	6500	6100
4-Chloro-3-methylphenol	mg/kg	340 UJ	320 UJ
4-Chloroaniline	mg/kg	530 UJ	500 UJ
2-Chloronaphthalene	mg/kg	110 UJ	100 UJ
2-Chlorophenol	mg/kg	130 UJ	120 UJ
4-Chlorophenyl-phenylether	mg/kg	110 UJ	110 UJ
Chrysene	mg/kg	4600	4500
Di-n-butylphthalate	mg/kg	92 UJ	88 UJ
Di-n-octylphthalate	mg/kg	160 UJ	150 UJ
Dibenz(a,h)anthracene	mg/kg	340 U	320 U
Dibenzofuran	mg/kg	10000	8800
1,2-Dichlorobenzene	mg/kg	110 UJ	100 UJ
1,3-Dichlorobenzene	mg/kg	160 UJ	150 UJ
1,4-Dichlorobenzene	mg/kg	170 UJ	160 UJ
3,3'-Dichlorobenzidine	mg/kg	760 UJ	720 UJ
2,4-Dichlorophenol	mg/kg	430 UJ	410 UJ
Diethylphthalate	mg/kg	200 J	180 J
2,4-Dimethylphenol	mg/kg	510	470
Dimethylphthalate	mg/kg	88 UJ	84 UJ
4,6-Dinitro-2-methylphenol	mg/kg	460 UJ	440 UJ
2,4-Dinitrophenol	mg/kg	1700 U	1600 U
2,4-Dinitrotoluene	mg/kg	190 UJ	180 UJ
2,6-Dinitrotoluene	mg/kg	80 UJ	80 UJ
Fluoranthene	mg/kg	21000	20000
Fluorene	mg/kg	15000	14000
Hexachlorobenzene	mg/kg	88 UJ	84 UJ
Hexachlorobutadiene	mg/kg	130 UJ	120 UJ
Hexachlorocyclopentadiene	mg/kg	180 UJ	170 UJ
Hexachloroethane	mg/kg	130 UJ	120 UJ

Analysis/ Analyte	Units	1-__	1-FD
Indeno(1,2,3-cd)pyrene	mg/kg	430	370
Isophorone	mg/kg	100 UJ	100 UJ
2-Methylnaphthalene	mg/kg	24000	22000
2-Methylphenol	mg/kg	110 UJ	100 UJ
4-Methylphenol	mg/kg	530 J	490 J
Naphthalene	mg/kg	26000	24000
2-Nitroaniline	mg/kg	710 UJ	680 UJ
3-Nitroaniline	mg/kg	670 UJ	640 UJ
4-Nitroaniline	mg/kg	1000 UJ	960 UJ
Nitrobenzene	mg/kg	140 UJ	130 UJ
2-Nitrophenol	mg/kg	140 UJ	130 UJ
4-Nitrophenol	mg/kg	1300 UJ	1200 UJ
N-nitroso-di-n-propylamine	mg/kg	290 UJ	280 UJ
N-nitrosodiphenylamine	mg/kg	76 J	72 UJ
Pentachlorophenol	mg/kg	410 UJ	390 UJ
Phenanthrene	mg/kg	46000	43000
Phenol	mg/kg	400	370
Pyrene	mg/kg	12000	12000
1,2,4-Trichlorobenzene	mg/kg	100 UJ	100 UJ
2,4,5-Trichlorophenol	mg/kg	370 UJ	360 UJ
2,4,6-Trichlorophenol	mg/kg	130 UJ	130 UJ
1 TCLP Semi-Volatiles in Hazardous			
1,4-Dichlorobenzene	mg/L	N/A O	
2,4-Dinitrotoluene	mg/L	N/A O	
Hexachlorobenzene	mg/L	N/A O	
Hexachlorobutadiene	mg/L	N/A O	
Hexachloroethane	mg/L	N/A O	
2-Methylphenol	mg/L	200 K	
3 and/or 4-Methylphenol	mg/L	200 K	
Nitrobenzene	mg/L	N/A O	
Pentachlorophenol	mg/L	100 K	
Pyridine	mg/L	N/A O	
2,4,5-Trichlorophenol	mg/L	400 K	
2,4,6-Trichlorophenol	mg/L	N/A O	

[redacted]3/25/04 AND 9/15/09 SAMPLING RESULTS COMPARISON TABLES

	(mg/kg)	3/25/04 #201/201FD Creosote	9/15/09 4544-1/45441FD Creosote
1	Acenaphthene	39000/39000	15000/14000
2	Acenaphthylene	800U/800U	72J/68J (340U/320U)
3	Anthracene	6000U/6000U	8600/8100
4	**Benz(a)anthracene** (U018)	9000/9100	4200/3900
5	**Benzo(a)pyrene** (U022)	3100/3200	1900/1800
6	**Benzo(b)fluoranthene**	4800/5100	2200/2100
7	Benzo(g,h,i)perylene	980J/960J	230J/300J (340U/320U)
8	Benzo(k)fluoranthene	1700/1800	770/680
9	bis(2-Ethylhexyl)phthalate	2000U/2000U	100UJ/96UJ (320U/340U)
10	Carbazole	6700/6600	6500/6100
11	**Chrysene** (U050)	8100/8200	4600/4500
12	Dibenz(a,h)anthracene (U063)	800U/800U	340U/320U
13	Dibenzofuran	24000/25000	10000/8800
14	2,4-Dimethylphenol	2000U/2000U	510/470
15	Fluoranthene (U120)	58000/59000	21000/20000
16	Fluorene	27000/28000	15000/14000
17	**Indeno(1,2,3-cd)pyrene** (U137)	2300/2300	430/370
18	2-Methylnaphthalene	37000/37000	24000/22000
19	4-Methylphenol	2000U/2000U	530J/490J (530/490)
20	Naphthalene (U165)	44000/44000	26000/24000
21	Phenanthrene	85000/86000	46000/43000
22	Phenol	800U/800U	400/370
23	Pyrene	34000/35000	12000/12000

[redacted]

D. Newsome 9/15/09 RCRA Sampling Inspection

QC CALCULATIONS

SAMPLE #	4544-1	4544-1FD	REL STD DEV
	(ppm)	(ppm)	%
Acenaphthene	15000	14000	4.88
Anthracene	8600	8100	4.23
Benzo(a)anthracene	4200	3900	5.24
Benzo(a)pyrene	1900	1800	3.82
Benzo(b)fluoranthene	2200	2100	3.29
Benzo(k)fluoranthene	770	680	8.78
Carbazole	6500	6100	4.49
Chrysene	4600	4500	1.55
Dibenzofuran	10000	8800	9.03
2,4-Dimethylphenol	510	470	5.77
Fluoranthene	21000	20000	3.45
Fluorene	15000	14000	4.88
Indeno(1,2,3-cd)pyrene	430	370	10.61
2-Methylnaphthalene	24000	22000	6.15
4-Methylphenol	530	490	5.55
Naphthalene	26000	24000	5.66
Phenanthrene	46000	43000	4.77
Phenol	400	370	5.51
Pyrene	12000	12000	0.00

[redacted]

A. Newsome 9/15/09 RCRA Sampling Inspection

ATTACHMENT 14 Page 1 of 1

PERCENT REL STD DEV=2(RANGE)/{[SQRT(2)]*(SUM)}*100

ATTACHMENT Page of

PHOTO LOG

Facility Name / City: [redacted] and Missouri Tie & Timber, Reynolds, MO

Facility ID #: Non-notifier and MOR000501924
Date : September 15, 2009
Photographer: Dedriel Newsome
Type of Camera: Olympus Stylus 720 SW, Serial #: A93671407
Digital Recording Media: Flashcard
All digital photos were copied by: Dedriel Newsome on 10/26/09 DN
All digital photos were copied to: CD-R
Original copy is stored in: CD-R. Digital photos were downloaded to CD-R all by Dedriel Newsome.
No changes were made in the original image files prior to storage on the CD-R. DN

Report Photo #	Photographer	Date	Approx. Time	File Name (Pxxxxxxx.jpg)	Description
1	Dedriel Newsome	09/15/09	9:23 AM	9150001	Missouri Tie & Timber – East catch vat tank for Treatment Cylinder #1 (northeast door). Sample #4544-1/4544-1FD.
2	Dedriel Newsome	09/15/09	9:23 AM	9150002	Missouri Tie & Timber – East catch vat tank for Treatment Cylinder #1 (northeast door). Close-up of photo #1. Sample #4544-1/4544-1FD.

[redacted]

[redacted]

[redacted]nd Missouri Tie &
Timber Photos
[redacted] and Reynolds, MO
9/15/09

Photos taken by Dedriel Newsome

Missouri Tie & Timber, Reynolds, MO and [redacted] 9/15/09

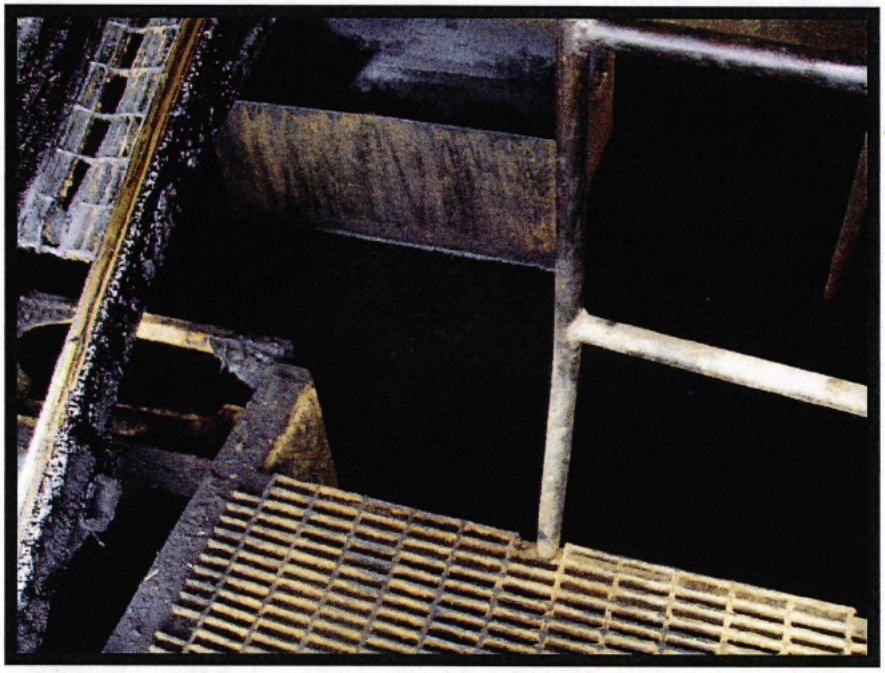


Photo 1 – Missouri Tie & Timber – East catch vat tank for Treatment Cylinder #1 (northeast door). Sample #4544-1 /4544-1FD.
D. Newsome

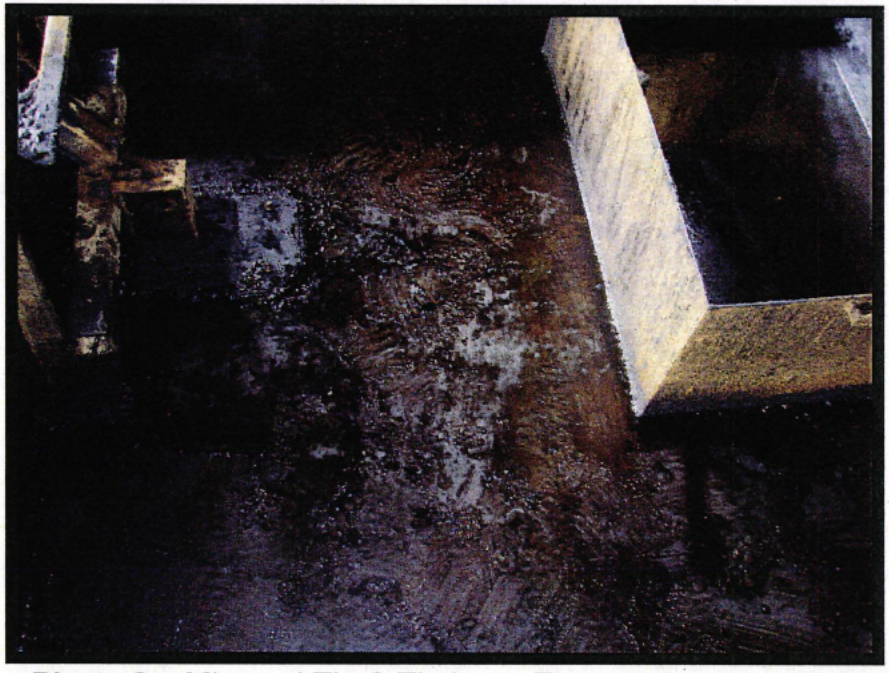


Photo 2 – Missouri Tie & Timber – East catch vat tank for Treatment Cylinder #1 (northeast door). Close-up of photo #1. Sample #4544-1/4544-1FD.
D. Newsome